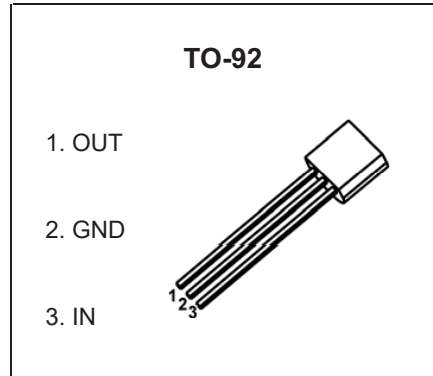


TO-92 Plastic-Encapsulate Voltage Regulators

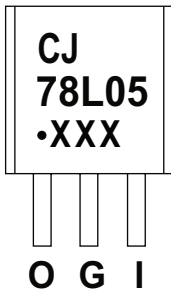
CJ78L05 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
 $I_{OM}: 0.1A$
- Output voltage
 $V_O: 5V$
- Continuous total dissipation
 $P_D: 0.625 W (T_a= 25 ^\circ C)$



MARKING



CJ78L05=Device code
Solid dot=Green molding compound device,
if none,the normal device
XXX=Code

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
CJ78L05	TO-92	Bulk	1000pcs/Bag
CJ78L05-TA	TO-92	Tape	2000pcs/Box

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	160	$^\circ C/W$
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^\circ C$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ C$

ELECTRICAL CHARACTERISTICS

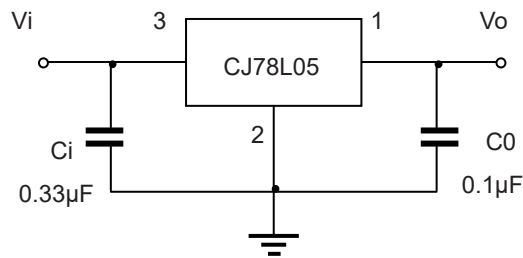
$T_a=25^\circ\text{C}$ unless otherwise specified

($V_i=10\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_J=25^\circ\text{C}$	4.85	5.0	5.15	V
			4.90	5.0	5.10	V
		$7\text{V}\leq V_i\leq 20\text{V}, I_o=1\text{mA}\sim 40\text{mA}$	4.75	5.0	5.25	V
			$I_o=1\text{mA}\sim 70\text{mA}$	4.75	5.0	5.25
Load Regulation	ΔV_o	$I_o=1\text{mA}\sim 100\text{mA}, T_J=25^\circ\text{C}$		15	60	mV
		$I_o=1\text{mA}\sim 40\text{mA}, T_J=25^\circ\text{C}$		8	30	mV
Line regulation	ΔV_o	$7\text{V}\leq V_i\leq 20\text{V}$		32	150	mV
		$8\text{V}\leq V_i\leq 20\text{V}, T_J=25^\circ\text{C}$		26	100	mV
Quiescent Current	I_q	$T_J=25^\circ\text{C}$		3.8	6	mA
Quiescent Current Change	ΔI_q	$8\text{V}\leq V_i\leq 20\text{V}$			1.5	mA
	ΔI_q	$1\text{mA}\leq I_o\leq 40\text{mA}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz}\leq f\leq 100\text{KHz}, T_J=25^\circ\text{C}$		42		$\mu\text{V}/V_o$
Ripple Rejection	RR	$8\text{V}\leq V_i\leq 20\text{V}, f=120\text{Hz}$	41	49		dB
Dropout Voltage	V_d	$T_J=25^\circ\text{C}$		1.7		V

* Pulse test.

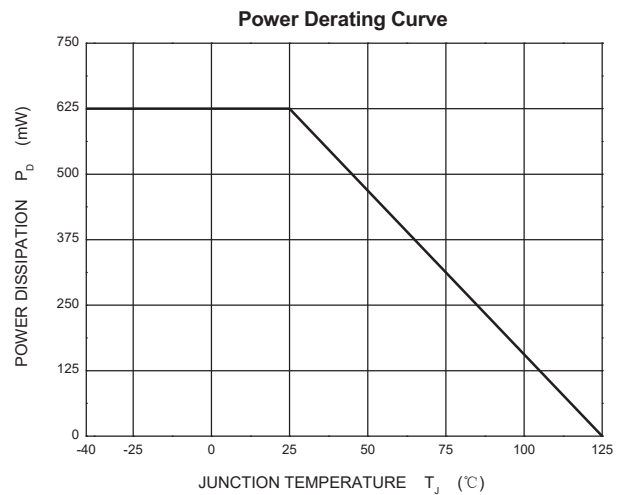
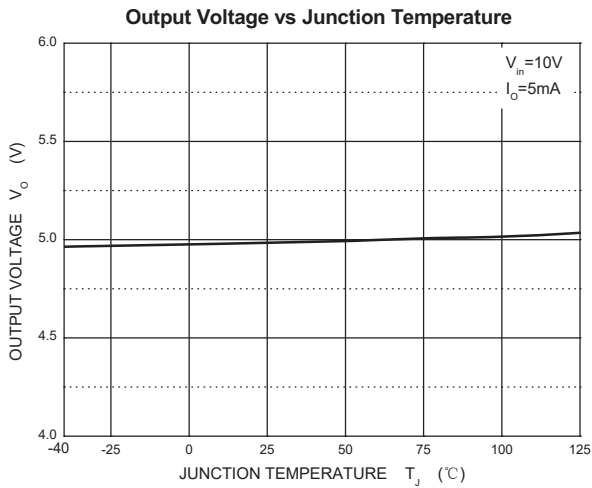
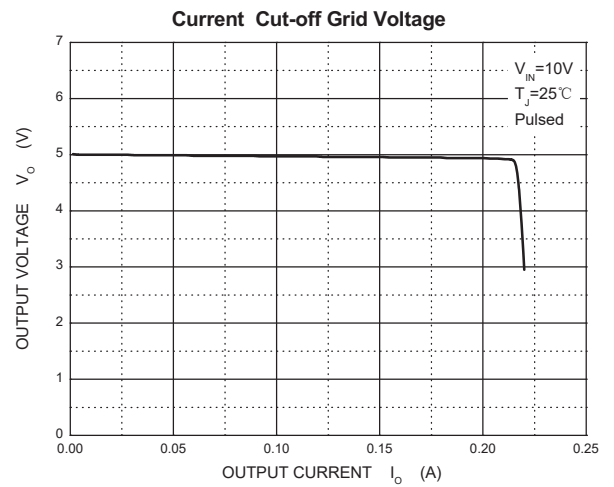
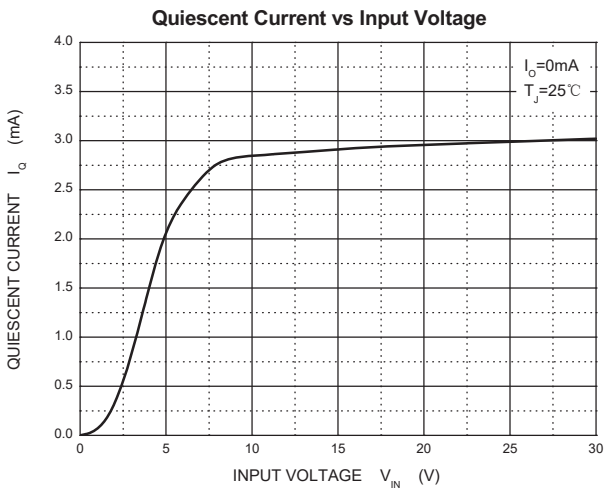
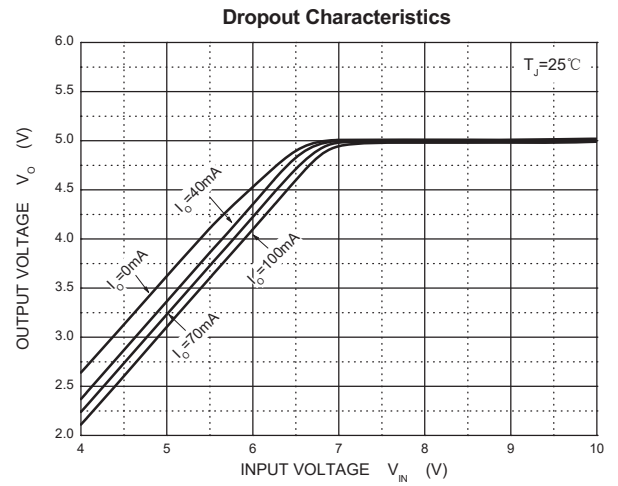
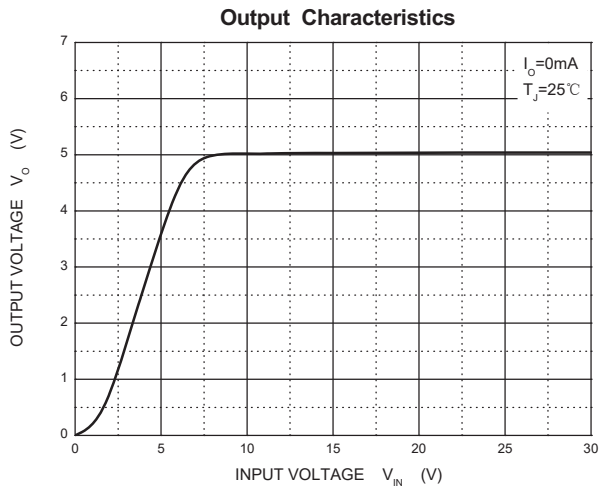
TYPICAL APPLICATION



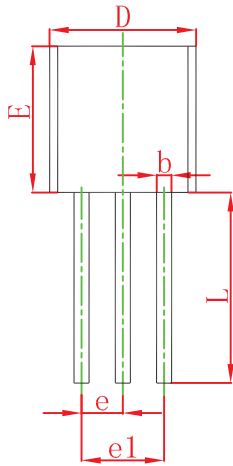
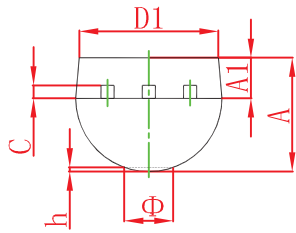
Note1: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Note2: This IC may be damaged by ESD. Relevant personnel shall comply with correct installation and use specifications to avoid ESD damage to the IC. Adding a suitable resistor in front of the IC input can reduce the possibility of IC damage by ESD to a certain extent.

Typical Characteristics

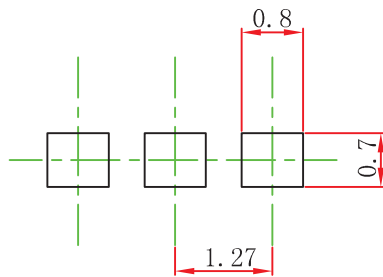


TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
K		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout

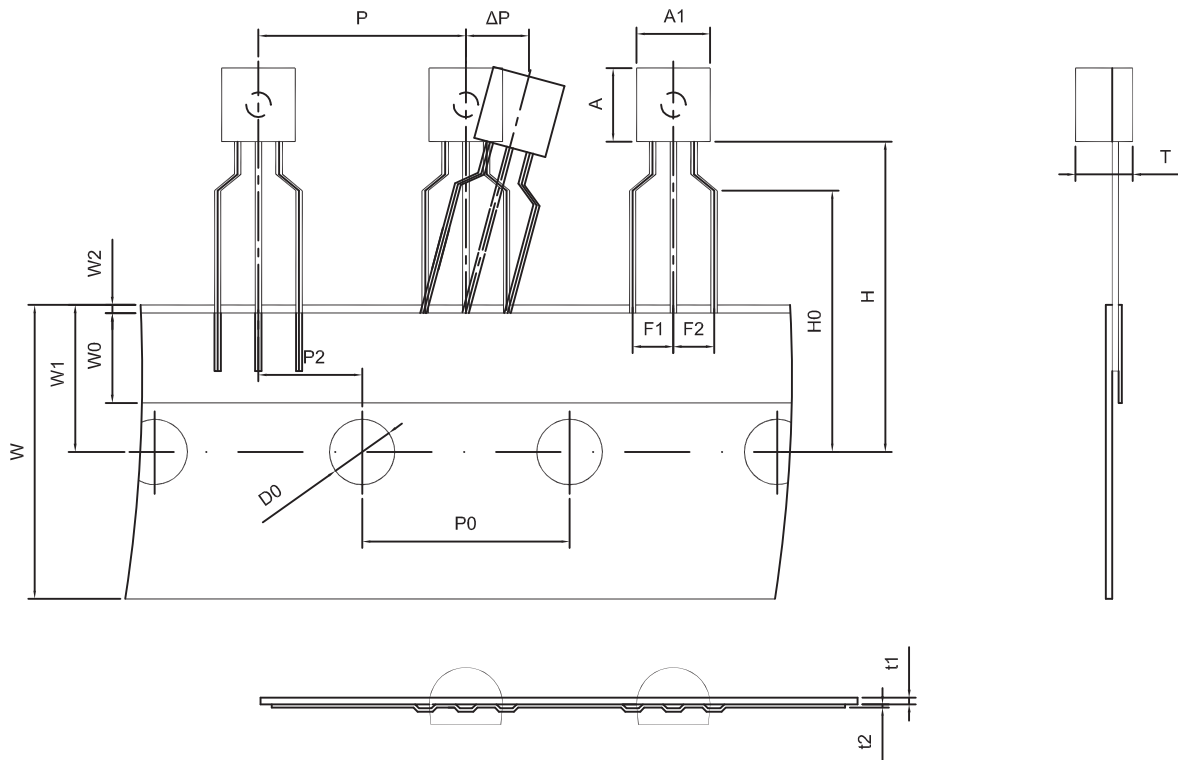


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

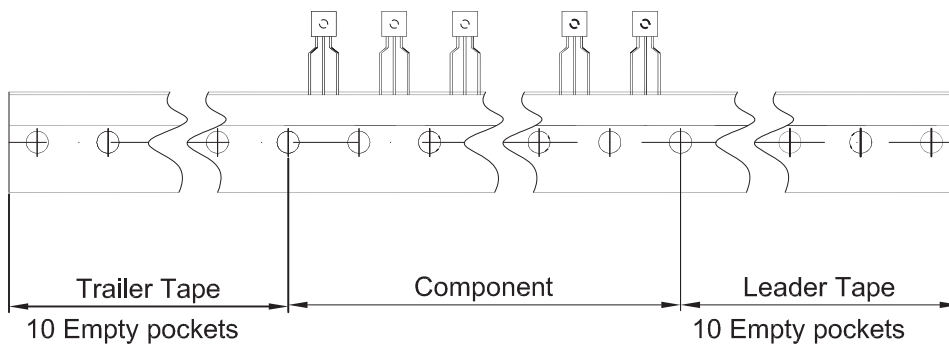
TO-92 PACKAGE TAPEING DIMENSION

TO-92 PACKAGE TAPEING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250

DISCLAIMER

IMPORTANT NOTICE, PLEASE READ CAREFULLY

The information in this data sheet is intended to describe the operation and characteristics of our products. JSCJ has the right to make any modification, enhancement, improvement, correction or other changes to any content in this data sheet, including but not limited to specification parameters, circuit design and application information, without prior notice.

Any person who purchases or uses JSCJ products for design shall: 1. Select products suitable for circuit application and design; 2. Design, verify and test the rationality of circuit design; 3. Procedures to ensure that the design complies with relevant laws and regulations and the requirements of such laws and regulations. JSCJ makes no warranty or representation as to the accuracy or completeness of the information contained in this data sheet and assumes no responsibility for the application or use of any of the products described in this data sheet.

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